

# Unlocking Solar Manufacturing Success: A Comprehensive Guide to UAE Government Incentives

Government Incentives, Market Strategy & Investment Framework

**Content Partner: J. v. G. technology GmbH**

*Turnkey solar module production lines — since 1997*

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# Technical Overview: UAE Government Incentives for Solar Manufacturing Success



Created as part of the PVKnowHow Knowledge Network



Prepared by J.v.G. Technology GmbH



European specialists in turnkey solar module production lines

# Key Project Data

## Multi-...

### Scale

Utility-scale deployment +  
manufacturing ecosystem  
context

## Policy

### Investment Driver

Policy-driven; varies by  
project scale and incentive  
structure

## Autom...


### Line Type

Automated solar module  
production — crystalline  
silicon

## 12–24 ...

### Ramp-Up Timeline

Typical period from contract  
signing to certified  
production

 Region: United Arab Emirates (UAE) · Application: Solar module manufacturing investment · Source: PVKnowHow / J.v.G. Technology GmbH

# UAE Solar Market: Scale & Growth Trajectory

## Installed Capacity

- ~7.9 GW installed solar capacity as of early 2024
- Projected to reach 36.06 GW by 2029 — CAGR 35.48%
- Target: 44 GW clean energy contribution by 2050
- Clean energy cost fell to 1.69 cents/kWh in 2024 — down from 11 cents/kWh a decade prior

## Landmark Projects

- Al Dhafra Solar PV: 2 GW (Abu Dhabi)
- MBR Solar Park: planned 5 GW total by 2030 — world's largest single-site installation
- Al Ajban Solar PV: 1.5 GW (tendered)
- Solar energy market: 11.0 TWh (2024) → 73.5 TWh projected by 2033 (CAGR 22.33%)

# National Policy Drivers: Energy Strategy 2050 & Net Zero

## UAE Energy Strategy 2050

- Launched 2017 – first unified national energy strategy
- Target: 50% clean energy in total energy mix by 2050
- Reduce carbon footprint of power generation by 70%
- Committed investment: AED 150–200 billion by 2030
- Clean energy share target: 32% by 2030 (phase 1)

## Net Zero 2050 Strategic Initiative

- Net Zero target enshrined into domestic law (2024 LTS submission to UNFCCC)
- USD 54 billion committed to renewables by 2030
- 200,000 new jobs targeted across solar, battery, and hydrogen sub-sectors
- UAE hosted COP28 in 2023 – global climate leadership signal

## Manufacturing Dimension

- MENA module manufacturing capacity: projected to exceed 3 GW (end 2024) → 44 GW by 2029
- Region forecasted to achieve self-sufficiency in module production by 2026
- UAE positioned as a leading manufacturing hub within MENA

# Logistics & Export Advantages

1

## Strategic Location

Crossroads of global trade routes — access to MENA, Africa, Europe, and Asia from a single hub

2

## World-Class Infrastructure

Jebel Ali Port (one of the world's largest), multiple international airports, and advanced logistics networks

3

## Export Market Access

UAE-origin products benefit from favorable tariff positioning toward the US, EU, and regional markets — "tariff haven" status for module exporters

- ❏ An experienced European turnkey provider can help manufacturers configure production lines specifically for UAE export strategies — reducing lead times and total logistics cost.

# Government Incentives: Tax, Customs & Financing

Incentive Type	Mechanism	Key Details
Corporate Tax	Qualifying Free Zone exemption	0% CT on qualifying income for Qualifying Free Zone Persons (QFZP)
Import/Export Duties	Customs waiver	Exemption from import/export duties on raw materials and equipment in Free Zones
Solar Equipment VAT	Zero-rated VAT	Equipment and materials for solar power generation eligible for duty-free treatment within first 10 years of certification
Development Finance	Emirates Development Bank (EDB)	AED 100M Solar Energy Finance Program; up to 100% project financing; max tenor 15 years, 2-year grace period
Industrial Strategy	"Make it in the Emirates" / Operation 300bn	EDB mandate: AED 30 billion to 13,500 companies across renewables, manufacturing, and tech by 2026
ICV Program	In-Country Value procurement preference	Preference in government contracts for companies contributing to local economic value

# Free Zones & Special Economic Zones (SEZs)

## Core Free Zone Benefits

- 100% foreign ownership – no local partner required
- 0% corporate tax on qualifying income (QFZP status)
- Full repatriation of profits and capital
- Exemption from import and export duties
- Streamlined administrative and licensing procedures
- Access to world-class industrial infrastructure and logistics

## Key Zones for Solar Manufacturing

- **KIZAD (Abu Dhabi):** Large industrial plots, strong connectivity – suited to heavy manufacturing
- **Dubai Industrial City (DIC):** Dedicated manufacturing hub with specialized infrastructure
- **Jebel Ali Free Zone (JAFZA):** One of the world's largest free zones; direct port access
- **Masdar City Free Zone:** Globally recognized clean technology and sustainability hub
- **SAIF Zone / Hamriyah Free Zone (Sharjah):** Cost-effective options with strong logistics access

## QFZP Compliance Requirements

- Must maintain adequate substance in the Free Zone
- Core income-generating activities (CIGAs) must be performed in-zone
- Manufacturing and processing of goods are defined qualifying activities
- Non-qualifying income taxed at standard 9% CT rate

# Investment Attractiveness & Risk Reduction

## Demand Certainty

- Government-mandated solar capacity targets create stable, long-term domestic demand
- Large pipeline of utility-scale projects provides offtake visibility
- MENA regional demand provides additional market scale beyond UAE borders

## Financial De-Risking

- EDB offers up to 100% project financing with competitive, long-term terms
- Tax and customs exemptions substantially reduce cost base
- Grants and subsidized funding available for projects aligned with national strategy

## Operational Advantages

- 100% foreign ownership permitted in Free Zones
- Diverse international workforce — access to technical and engineering talent
- Stable political and regulatory environment
- Local production reduces shipping costs and supply chain exposure versus imports

# Application Process Overview

1

## 1 — Strategic Alignment Assessment

Define the project's contribution to job creation, technology transfer, export potential, and ICV program compliance

Align scope with "Make it in the Emirates" / Operation 300bn objectives

2

## 2 — Location & Zone Selection

Evaluate Free Zone vs. mainland setup; select zone based on industrial infrastructure, logistics, and tax structure

Engage zone authority for licensing requirements and land/facility options

3

## 3 — Business Plan Development

Prepare a bankable business plan covering technical specifications, production scale, LCR strategy, and financial projections

Well-prepared applications with clear strategic alignment receive faster approval

4

## 4 — Financing Application (EDB & Other Institutions)

Submit to Emirates Development Bank or aligned national financial institutions

EDB evaluates applications against its Development Impact Scorecard (20+ quantitative and qualitative factors)

5

## 5 — Licensing, Permits & Production Ramp-Up

Obtain trade license, industrial approvals, and IEC/UL module certifications

Commission turnkey production line; typical ramp-up: 12–24 months to certified production

# Key Challenges for Investors

## Structural Challenges

- **Local Content Requirements (LCR):** UAE is implementing LCRs to boost domestic value addition — manufacturers must plan sourcing and operations accordingly
- **Skilled Labor:** Securing highly specialized engineers and technicians for solar manufacturing requires targeted recruitment and ongoing training investment
- **Raw Material Import Dependency:** Specialized glass, solar cells, and key components require reliable import supply chains; UAE logistics help mitigate — but not eliminate — this exposure

## Competitive & Regulatory Challenges

- **Supply Chain Volatility:** Geopolitical disruptions and raw material price swings require supply chain agility and diversification
- **Cost Competitiveness:** Competing with large-scale Asian manufacturers demands a strong focus on automation, efficiency, and the UAE's unique locational advantages
- **Regulatory Dynamics:** The incentive and policy landscape continues to evolve — staying current on program updates is essential
- **QFZP Compliance:** Maintaining qualifying Free Zone Person status requires substance, CIGA requirements, and ongoing monitoring

# Future Outlook: Capacity Growth & Regional Leadership

1

## MENA Manufacturing Scale-Up

MENA solar module manufacturing capacity projected to reach 44 GW by 2029; region forecasted to achieve self-sufficiency in production by 2026

2

## UAE as Regional Hub

UAE positioned to lead MENA solar manufacturing; international partnerships — including leading Asian solar technology firms — validating the UAE as a production base

3

## Long-Term Policy Continuity

Net Zero 2050 target enshrined in law; AED 150–200 billion investment commitment by 2030; sustained government alignment reduces policy reversal risk for manufacturers

- ✔ The convergence of national policy targets, a structured incentive framework, and growing regional demand creates a multi-decade investment window for solar module manufacturing in the UAE.

# About the Content Partner

## **J. v. G. technology GmbH** – The DESERT Company

Founded in 1997 in Bavaria, Germany. Family-owned engineering company specializing in turnkey solar module production lines.

More than 90 factory projects delivered worldwide.

On-site team training included – no prior manufacturing experience required.

### Key areas:

Turnkey PV manufacturing lines | DESERT Technology® |  
TÜV-certified module designs | Factory planning to production

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